Contents

Beilby, M. J., Shepherd, V. A., Cytoplasm-enriched fragments of *Chara:* structure and electrophysiology 150
Bertrand, M. A., s. Planques, V.
Brakenhoff, G. J., s. Spronson, E. A. van
Brown, R. C., Lemmon, B. E., Minispindles and cytoplasmic domains in microsporogenesis of orchids 26
Butler, R. D., s. Møgensen, M. M.

Cresti, M., s. Went, J. van

Ducommun, B., s. Planques, V.

Franceschi, V. R., Calcium oxalate formation is a rapid and reversible process in *Lemna minor* L. 130

Gross, H., s. Rudolph, U.

Hackett, W. P., s. Marc, J.

Heimann, K., Reize, I. B., Melkonian, M., The flagellar developmental cycle in algae: flagellar transformation in *Cyanophora paradoxa* (*Claucocystophyceae*) 106
Hori, T., S. Moestrup, Ø.
Horwitz, S. B., s. Masurovsky, E. B.
Hussey, G., Johnson, R. D., Warren, S., Transformation of meristematic cells in the shoot apex of cultured pea shoots by *Agrobacterium tumefaciens* and *A. rhizogenes* 101

Iwabuchi, A., Yano, M., Shimizu, H., Development of extracellular electric pattern around *Lepidium* roots: its possible role in root growth and gravitropism 94

Johnson, R. D., s. Hussey, G.

Lemmon, B. E., s. Brown, R. C.

Marc, J., Hackett, W. P., A new method for immunofluorescent localization of microtubules in surface cell layers: application to the shoot apical meristem of *Hedera* 70
Martinez-Cadena, G., s. Ruiz-Herrera, J.
Masurovsky, E. B., Horwitz, S. B., Ultrastructural effects of colchicine, vinblastine, and taxol in drug-sensitive and multidrug-resistant J 774.2 cells 138
Melkonian, M., s. Heimann, K.
Mims, C. W., Richardson, E. A., Ultrastructure of appressorium development by basidiospore germlings of the rust fungus *Gymnosporangium juniperi-virginianae* . . . . . .
Moestrup, Ø., Hori, T., Ultrastructure of the flagellar apparatus in *Pyramimonas octopus* (*Prasinophyceae*). II. Flagellar roots, connecting fibres, and numbering of individual flagella in green algae 41
Møgensen, Mette M., Butler, R. D., Electrically induced tentacle contraction in the suctorian protozoon *Trichophrya collini* 33

Nanninga, N., s. Spronson, E. A. van

Obregon, A., s. Ruiz-Herrera, J.

Planques, V., Ducommun, B., Bertrand, M. A., Tollon, Y., Wright, M., Variation of the immunolabelling of the α_1-isotubulin in the mitotic spindle of *Physarum polycephalum* 120
Reize, I. B., s. Heimann, K.
Richardson, E. A., s. Mims, C. W.
Rudolph, U., Gross, H., Schnepf, E., Investigations of the turnover of the putative cellulose-synthesizing particle "rosettes" within the plasma membrane of *Funaria hygrometrica* protonema cells II. Rosette structure and the effects of cycloheximide, actinomycin D, 2.6-dichlorobenzonitrile, biofluor, heat shock, and plasmolysis 57

Ruiz-Herrera, J., Valenzuela, C., Martinez-Cadena, G., Obregon, A., Alterations in the vesicular pattern and wall growth of *Phycomyces* induced by the clacium ionophore A 23187 15

Sarafis, V., s. Spronson, E. A. van
Schnepf, E., s. Rudolph, U.
Shepherd, V. A., s. Beilby, M.
Shibaoka, H., s. Sonobe, S.
Shimizu, H., s. Iwabuchi, A.
Sonobe, S., Shibaoka, H., Cortical fine actin filaments in higher plant cells visualized by rhodamine-phalloidin after pretreatment with m-maleimidobenzoyl N-hydroxysuccinimide ester 80
Spronson, E. A. van, Sarafis, V., Brakenhoff, G. J., Voort, H. T. M. van der, Nanninga, N., Three-dimensional structure of living chloroplasts as visualized by confocal scanning laser microscopy 8

Tollon, Y., s. Planques, V.

Valenzuela, C., s. Ruiz-Herrera, J.
Voort, H. T. M. van der, s. Spronson, E. A. van

Warren, S., s. Hussey, G.
Went, J. van, Cresti, M., Cytoplasmic differentiation during tetrad formation and early microspore development in *Impatients sultani* 1

Wright, M., s. Planques, V.

Yano, M., s. Iwabuchi, A.

Zachariah, K., Chemical induction of trap closure in *Dactylella brochopaga* 87

Rapid Communications

Nishizawa, N. K., Mori, S., Takahashi, S., Ueda, T., Mugineic acid secretion by cultured barley cells derived from anther 143